

026 4. The cardioplegia catheter of claim 1 wherein the shaft is between about 25 cm and 75 cm in length.

19. A catheter system for inducing cardioplegic arrest comprising:

a cardioplegia catheter including:

a shaft with a distal end, a proximal end, an opening near the distal end, a port at the proximal end, and an inner lumen fluidly connecting the port and the opening, a distal portion of the shaft being configured to extend into the ascending aorta when a proximal portion of the shaft extends into a left chamber of the heart through the aortic valve and out of the heart through a penetration in a wall thereof; and

a guiding device for guiding the distal portion of the shaft into the ascending aorta from the left chamber of the heart.

20. A catheter system for inducing cardioplegic arrest comprising:

29 a cardioplegia catheter including:

a shaft with a distal end, a proximal end, an opening at the distal end, a port at the proximal end, and an inner lumen fluidly connecting the port and the opening, a distal portion of the shaft being configured to extend into the ascending aorta when a proximal portion of the shaft extends into a left chamber of the heart through the aortic valve and out of the heart through a penetration in a wall thereof; and

an occlusion member mounted near the distal end of the shaft and configured to occlude the ascending aorta between the brachiocephalic artery and the coronary ostia;

a source of cardioplegic fluid in communication with the port at the proximal end of the shaft; and

an arterial return cannula positionable in an artery downstream of the occlusion member for maintaining circulation of oxygenated blood in the patient's arterial system.